USDA

DECISION MEMO

HK Fire Salvage and Roadside Danger Tree Project
U.S. Forest Service
Umatilla National Forest
Heppner Ranger District
Morrow County, Oregon

BACKGROUND

The HK Complex Fires occurred in August 2019 approximately 40 miles south of Heppner in Morrow County, Oregon. The complex of 12 fires burned approximately 2,700 acres. The largest individual fire burned 600 acres. The fires burned along and across numerous roads.

The purpose of the HK Fire Salvage and Roadside Danger Tree Project is to salvage timber from dead and dying trees killed by the fire or by bark beetles as a result of the fire within the fire footprint, and to remove roadside danger trees for public safety. Only dead and dying trees will be removed. Dead and dying trees affected by bark beetles as a result of the fire may be harvested but the proposed treatments will not effectively prevent or reduce insect outbreaks. Reforestation through tree planting will occur as needed across harvested acres.

DECISION AND RATIONALE

This decision approves the following actions:

- Salvage and commercial sale of 236 acres of dead and dying trees killed by the fire or affected by bark beetles as a result of the fire. Post-fire tree mortality will be assessed using Scott et al. (2002) guidelines. Marketable salvage timber including some dead trees greater than 21" diameter at breast height (DBH) will be harvested.
- Roadside danger tree removal will occur on up to 20 miles of road. Danger trees will be identified according to Forest Service Region 6 danger tree policy.
- Reforestation of harvested areas through planting of appropriate tree species.
- No removal of live trees that are 21" DBH or larger. Fire-injured trees that still display green needles and are greater than or equal to 21" DBH will not be removed unless they are identified as danger trees in operational areas or within 200 feet of a haul route.
- Construction of temporary roads, not to exceed ½ mile in total, combined length (See Map A-2).
- Project implementation shall conform to attached Project Design Criteria (Appendix B)

CATEGORICAL EXCLUSION

These actions are categorically excluded from documentation in an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) consistent with Title 36 of the Code of Federal Regulations (CFR), 220 and Forest Service Handbook 1909.15, section 32.2(11).

Salvage operations are categorically excluded from further analysis with this decision memo under 36 CFR 220.6 (e)(13): *"Salvage of dead and/ or dying trees not to exceed 250 acres, requiring no more than ½ mile of temporary road construction. The proposed action may include incidental removal of live or dead trees for landing, skid trails and road clearing."*

Planting operations are categorically excluded from further analysis with this decision memo under 36 CFR 220.6 (e)(5) *"Regeneration of an area to native tree species, including site preparation that does not involve the use of herbicides or result in vegetation type conversion."*

Danger tree removal is categorically excluded from further analysis with no documentation under 36 CFR 220.6(d)(4): *"Repair and maintenance of the roads, trails, and landline boundaries."*

The categorical exclusions are appropriate in this situation because there are no extraordinary circumstances, including any uncertainty in the potential for having effects which may significantly affect the environment. My conclusion is based on information summarized in this document and the project file.

EXTRAORDINARY CIRCUMSTANCES

I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an Environmental Analysis or Environmental Impact Statement. I took into account resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist:

- **Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species** –

  Wildlife: The project will have **No Effect** on any federally threatened, endangered, or proposed terrestrial wildlife or invertebrate species. The project may impact individuals of Region 6 sensitive species dependent on snag habitat including white-headed and Lewis' woodpeckers and fringed myotis, but due to the quantity of dead standing wood that will remain across the landscape after implementation, this project **would not lead to a trend towards federal listing or loss of viability** for these populations.

  Aquatics: The proposed action will have **No Effect** on federally listed species or their critical habitat. The redband trout, a sensitive species, has been documented in the project area but will not be affected.

  Plants: Implementation of this project will have **No Effect** to any federally listed, proposed or candidate plant species. Consultation with the U.S. Fish and Wildlife Service is not necessary for plants for this project.

The sensitive plant species Bolander's spikerush, has been found in several nearby areas on the Heppner Ranger District. This habitat type will be protected by the project design criteria for the project.

- **Flood plains, wetlands, or municipal watersheds** – The proposed action would restrict equipment entry into all RHCAs, except in cases where pre-existing roads occur within RHCAs. In these instances, equipment is restricted to remain within the road. Therefore, treatments in RHCAs would not be likely to have any measurable effects to watersheds. The implementation of project design criteria and best management practices would prevent direct and indirect impacts to water quality, and there would be no measurable impacts to sediment loading which would impact downstream beneficial uses. All springs and wetlands would retain buffers where harvest and equipment entry would be restricted. There are no designated municipal watersheds or de-facto municipal watersheds in the project area.
- **Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas** – The project area does not contain any congressionally-designated areas.
- **Inventoried roadless areas or potential wilderness areas** – There are no inventoried roadless areas or potential wilderness areas within the project area.
- **Research natural areas** – There are no Research Natural Areas identified or proposed within the project area.
- **American Indians and Alaska Native religious or cultural sites** – Potential affects to Native American sites were considered. There will be a "No Effect" to Native American Cultural Sites.
- **Archaeological sites, or historic properties or areas** – Surveys were conducted for Native American religious or cultural sites, archaeological sites and historic properties or areas that may be affected by the decision.

PUBLIC INVOLVEMENT

This action was originally listed as a proposal on the November 2019 National Forest Schedule of Proposed Actions and updated periodically during the analysis. Public scoping for this project was initiated on November 18, 2019 with a news release and posting to the Umatilla NF social media pages. Scoping letters and maps were sent to Morrow County commissioners, National Marine Fisheries Service and the Blue Mountain Biodiversity Project.

On November 07, 2019 scoping letters were sent to the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Confederated Tribes of Warm Springs Reservation (CTWSR). The project was also presented at the December 2019 CTUIR program of work meeting, and no concerns were raised or identified by Tribes.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

The project file contains information supporting the following findings. This project is tiered to the Umatilla National Forest Land and Resource Management plan (Forest Plan), Final Environmental Impact Statement, and Record of Decision dated June 11, 1990 and all subsequent NEPA analysis for Forest Plan amendments.

The action is consistent with the Forest Plan as amended. The project was designed in conformance with Forest Plan standards and incorporates appropriate Forest Plan guidelines.

The project is in compliance with the Endangered Species Act, Clean Water Act, Safe Drinking Water Act, Executive Order 11988, Executive Order 11990, and other applicable laws (See Project file). There is no prime farmland, rangeland, of forestland within the project area.

This project is not expected to have any disproportional effects on consumers, civil rights, minority groups, women, or low income people because there would be no change in the long-term use of the areas for these populations (Executive Order 12898).

IMPLEMENTATION DATE

This decision is not subject to administrative review pursuant to 36 CFR 218.23. Implementation may begin as soon as spring 2020.

CONTACT

This Decision Memo and associated project file, including maps, may be viewed by appointment at the Heppner Ranger District at 117 S. Main St, Heppner, OR 97836. Contact Katelynn Bowen at 541-676- 2130 for further information concerning this project.

Brandon J. Houck

BRANDON HOUCK
Heppner District Ranger

2/27/20

Date

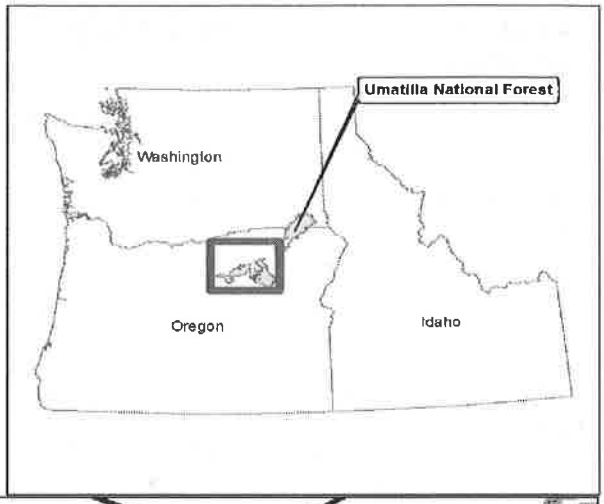
Appendix A : PROJECT MAPS

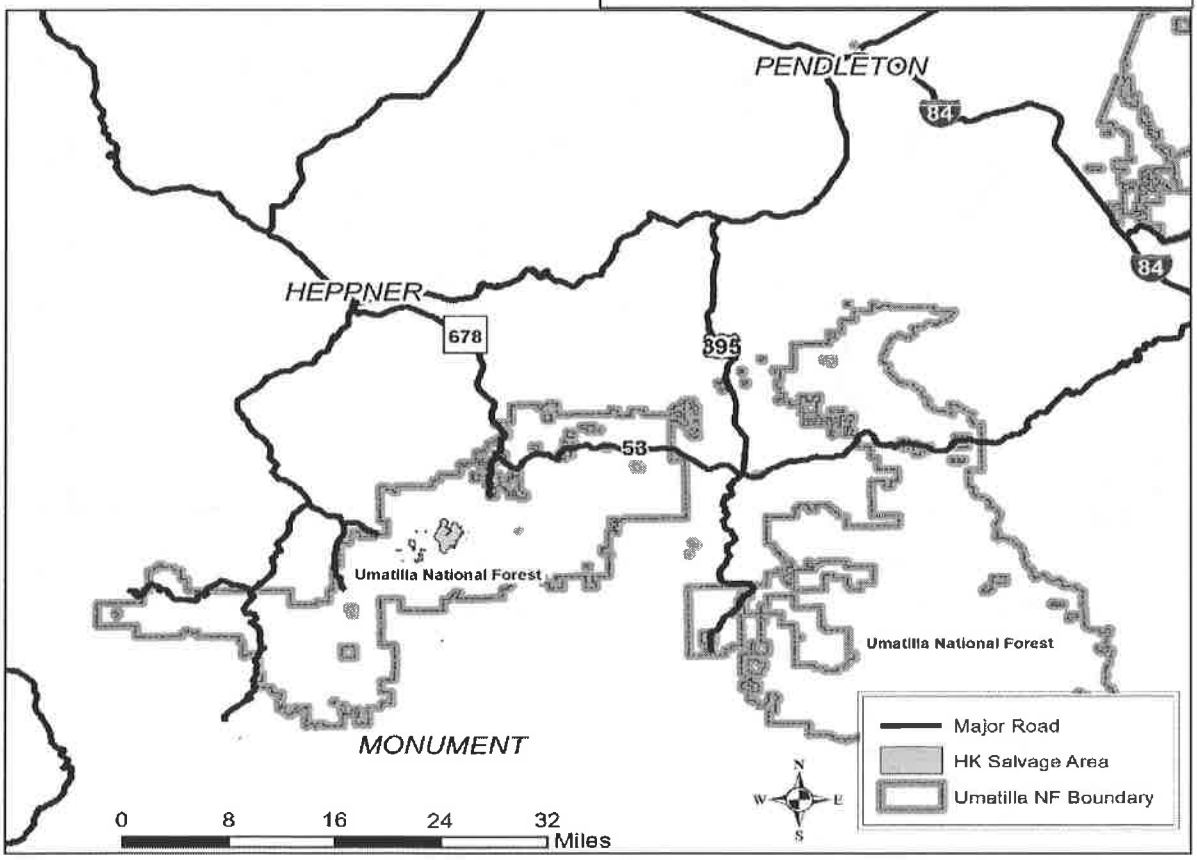
Map A-1. Vicinity Map

HK Salvage CE

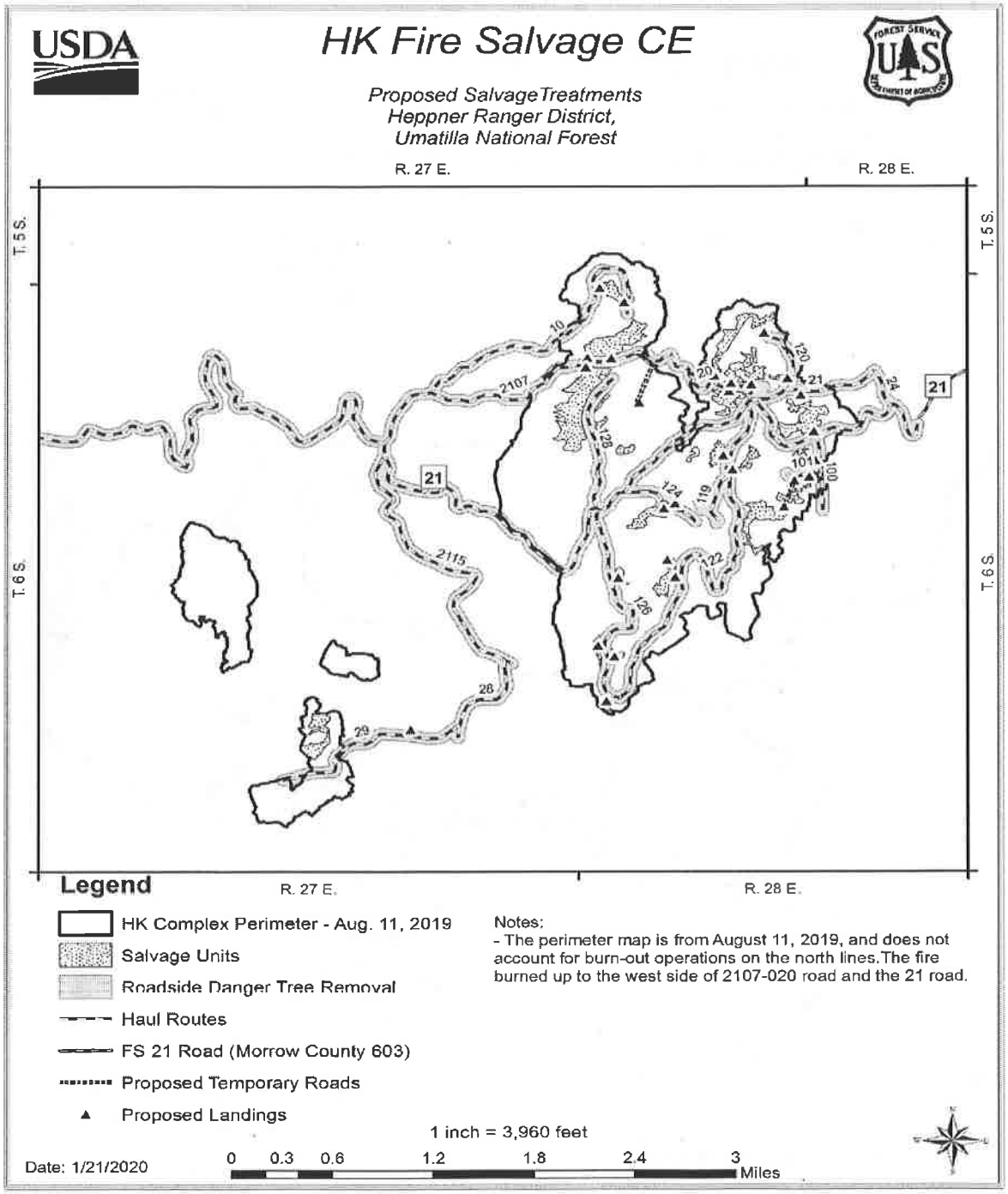
Vicinity Map
Heppner Ranger District
Umatilla National Forest

Date: 1/21/2020





Map A-2. Project Activities Map



Appendix B : PROJECT DESIGN CRITERIA

HK Fire Salvage Project Design Criteria

Project Design Features, Mitigation Measures and Best Management Practices Common to the Proposed Action.

The Forest Service developed the following project design features to address overall project objectives, minimize effects to resources and ensure Forest Plan and legal compliance. Table B1 displays the Project Design Criteria (PDC). Some PDC are applicable to only certain areas of the project. The proposed action is designed to be consistent with the Blue Mountain Project Design Criteria II (2015) Biological Assessment, and PACFISH requirements. Blue Mountain Project Design Criteria are displayed in table B2.

Water Best Management Practices (BMPs)

Protecting aquatic resources is a crucial long-term objective when managing National Forests. Achieving these objectives requires practices that are implemented at the project level when activities are taking place. They may become even more refined at the site-level, where project design features (PDFs) are tailored to particular conditions and specific features of the local landscape. Broad-scale conservation objectives and site-level design and protection measures are intended to contain the extent and severity of detrimental soil disturbance that can occur as a result of ground disturbing activities. Together these are the principle means for protecting and conserving soil resources so that long-term site productivity is assured.

Best Management Practices (BMPs) adapted from the National Best Management Practices for Water Quality Management of National Forest System Lands – Volume 1 (USDA Forest Service 2012) will be implemented as appropriate and are incorporated by reference. Specific applicable BMPs are:

Road-4. Road Operations and Maintenance (p. 111)
Road-5. Temporary Roads (p. 114)
Road-6. Road Storage and Decommissioning (p. 115)
Road-8. Snow Removal and Storage (p. 120)
Road-10. Equipment Refueling and Servicing (p. 123)
Veg-2. Erosion Prevention and Control (p. 131)
Veg-3. Aquatic Management Zones (p. 132)
Veg-4. Ground-Based Skidding and Yarding Operations (p. 134)
Veg-6. Landings (p. 136)
Veg-7. Winter Logging (p. 137)
Veg-8. Mechanical Site Treatment (p. 139)

BMPs are standard conservation practices that have proven effective in protecting soil and water resource values during land management activities. They are considered standard operating procedures and apply to all activities. They are assumed to be readily implementable and have a high probability of success when correctly implemented. While these are considered standard operating procedures on all projects occurring on National Forest lands, local variations of many of these have evolved to adapt to specific ground conditions, Regional guidance, and LRMP direction. Where a site-specific design based on a documented BMP is needed, it is listed in the Project Design Criteria section below.

Table B-1: Project Design Criteria

	Design
	ARCHEOLOGY
ARCH-01	Mark heritage resource sites and avoid all marked sites during all ground-disturbing project activities. The heritage resources within or immediately adjacent to treatment units would be flagged (10 meter buffer applied).
ARCH-02	Allow thinning within heritage site boundaries, provided: cutting is accomplished using hand tools only (no mastication, pile burning or ground disturbance within heritage site boundaries); no mechanized equipment or staging of equipment within site boundaries; large diameter trees are felled away from all features; and thinned material is hand carried outside the site boundary. Existing roads can be used for hauling or skidding within the site boundaries; however, no expansion of roads within the sites is to occur.
ARCH-03	All new temporary roads will be routed away from buffered site boundaries. To minimize the potential effect of actions related to road maintenance, use, reopening, and closure during the project, the following protection measures must be followed. All ground disturbing activities such as vegetation removal, scarification, grading, and berming would be carried out within the existing road footprint.
ARCH-04	If any staging or storage areas must be established outside the existing roadbed, these areas would be situated within existing heritage inventory areas and the action must be determined through consultation with the Forest, District, or Zone Archaeologist to have no effect on known historic properties. Depending on the context of these locations and the scale of the proposed work, an on-site archaeologist may also be required to monitor the work.
ARCH-05	If any previously unidentified cultural resources are located during project implementation, ground-disturbing work will be halted in the vicinity until the resources are evaluated by the District or Zone archaeologist. If the cultural resources are determined to be potentially eligible for listing on the National Register of Historic Places work will either be permanently halted or a mitigation plan will be developed in consultation with the Oregon SHPO before work continues.
	BOTANY - Sensitive Plants
BOT-01	Populations of Forest Service designated sensitive plant species that are in, or near, areas with proposed ground disturbing activities shall be designated as "Special Management Areas" (SMAs). • These sites shall be protected from all ground disturbances. Vehicle and equipment parking, log decking, yarding, slash piling and burning, and construction of fire lines shall be prohibited within these areas. These areas shall be excluded from fuels treatments, including under burning. Trees shall be directionally felled away from SMAs. Trees incidentally felled into an SMA shall be left in place. • SMAs shall be clearly marked on sale maps, and on implementation planning maps. SMAs may be flagged on the ground prior to treatment. A botanist may assist with unit layout in areas where the SMAs occur.
BOT-02	If any new sensitive plant populations are located before, or during project implementation, the Forest Botanist shall be notified. The population will be evaluated, and the appropriate project design criteria shall be applied.

	Design
BOT-03	Timber sale administrator and/or implementing staff shall notify botany staff when activities are scheduled to begin in areas where SMAs are designated.
BOT-04	The following unique habitats shall be protected from harvest activities: lithosols (scablands), seeps, springs, wallows, and wetland areas (including seasonally wet meadows). Wetland and riparian areas shall be buffered in accordance with PACFISH RHCA Standards and Guidelines. Vehicle and equipment parking, log decking, yarding, slash piling and burning, and construction of fire lines shall not occur in identified unique habitat areas unless otherwise agreed to by Forest Service after consultation with the specialist.
	BOTANY - Non-Native Invasive Plants
BOT-05	Prevention Standard 1: Prevention of invasive plant introduction, establishment and spread will be addressed in watershed analysis; roads analysis; fire and fuels management plans, Burned Area Emergency Recovery Plans; emergency wildland fire situation analysis; wildland fire implementation plans; grazing allotment management plans, recreation management plans, vegetation management plans, and other land management assessments.
BOT-06	Prevention Standard 2: Actions conducted or authorized by written permit by the Forest Service that will operate outside the limits of the road prism (including public works and service contracts), require the cleaning of all heavy equipment (bulldozers, skidders, graders, backhoes, dump trucks, etc.) prior to entering National Forest System Lands
BOT-07	Prevention Standard 3: Use weed-free straw and mulch for all projects, conducted or authorized by the Forest Service, on National Forest System Lands. If State certified straw and/or mulch is not available, individual Forests should require sources certified to be weed free using the North American Weed Free Forage Program standards, or a similar certification process.
BOT-08	Prevention Standard 7: Inspect active gravel, fill, sand stockpiles, quarry sites, and borrow material for invasive plants before use and transport. Treat or require treatment of infested sources before any use of pit material. Use only gravel, fill, sand, and rock that is judged to be weed free by District or Forest weed specialists.
BOT-09	Prevention Standard 8: Conduct road blading, brushing and ditch cleaning in areas with high concentrations of invasive plants in consultation with District or Forest-level invasive plant specialists, incorporate invasive plant prevention practices as appropriate.
	BOTANY - Revegetation
BOT-10	When it is deemed necessary to re-establish native vegetation, and to prevent non-native invasive species infestations, seeding and/or planting of native plants shall be implemented after ground disturbing activities. Areas that may need treatment include: log decks, staging areas, landing zones, temporary roads, slash piles, skid trails, decommissioned roads, and any other disturbed site. All seed used for revegetation will be native seed provided by the Forest Service.
	FISH
FISH-1	Equipment must remain on the road and reach when cutting and or removing danger trees along RHCA's. Wood remaining in the RHCA should exceed the PACFISH standards (at least 13 pieces/1/2 mile; >12 in diameter, >35 ft length.

	Design
	RECREATION
REC-01	Consultation with the forest recreation staff when hauling over snow logging on the 21 road and 2107 road. These roads are snowmobile routes.
	SILVICULTURE
SILV-01	Fire-injured trees that still display green needles and are greater than or equal to 21" DBH will not be removed unless they are identified as Danger Trees per R6 standards.
	SOILS
SOILS-01	Retain as much fine (needles and duff) and course (less than 3 inches in diameter) woody material as possible while meeting fuel reduction objectives (not to exceed 9 tons per acre) for erosion control and provide nutrient cycling.
SOILS-02	Pile fuels (both hand and machine piles) on sites already disturbed by logging activities (old skid trails and landings). Avoid pile burning on shallow soils as it will sterilize the soil profile due to the shallow depth. Refrain from fuel piling above or below culverts or in drainages. Limit pile size to less than a normal landing area. For landscape and pile burning, maintain less than 15 percent or less soil exposure on slopes greater than 35%.
SOILS-03	Design and locate skid trails and skidding operations to minimize soil disturbance. A. Designate skid trails to limit site disturbance. (> 100ft spacing with regular ground-based operations >50 feet with activities over slash in trails). B. Locate skid trails to avoid concentrating runoff and provide breaks in grade. C. Use Soil Moisture vs. Texture Operability document to avoid detrimental soil conditions during seasons when moisture will affect soil stability. D. Use of ground-based skidding or forwarding equipment on slopes exceeding 35% should be limited to short pitches on mountain backslopes. Where slopes are greater than 35%, single passes with felling equipment are acceptable. It would be preferable if singles passes could be done over slash, but it is not required. If additional passes are necessary, they must be done over a minimum of 8 inches of slash. Greater activity on steep slopes requires vehicle features or equipment to minimize track or tire slippage limiting focused pressure by the equipment to gain traction on steeper slopes. Appropriate equipment for steeper slopes is encouraged. Directional felling or winching is recommended for use where necessary.
SOILS-04	Avoid operating on shallow soils for driving, skidding, and landing use unless over snow of 18 inches or more. If use is necessary disturbance will be kept to edges of these features resulting in disturbance of a minimum amount of the area and activities will occur on a bed of slash (>12-inch-thick) to mitigate soil compaction and displacement. Restorative actions, such as scarifying, seeding, mulching and/or adding nutrients, such as biochar would be used to improve soil productivity if project activity occurs. Shallow soils are commonly associated with convex-convex areas identified by concentrated grasses, forbes, and low growing shrubs (less than 12 inches high). The following plant associations are identified in the HK Salvage area: bluebunch wheatgrass-Sanberg bluegrass-onespike oatgrass (GB4911), Idaho fescue-bluebunch wheatgrass (ridge) (GB5915), bitterbrush/Idaho fescue-bluebunch wheatgrass (SD3111), bluebunch wheatgrass-Sanberg bluegrass (GB41), bluebunch wheatgrass-Sandberg bluegrass (basalt) (GB4113), and Idaho fescue-bluebunch wheatgrass (GB59).

	Design
SOILS-05	Operate ground-based equipment when soil conditions are dry, frozen, or snow covered. If possible, operate on a bed of slash (>12-inch-thick) to mitigate soil compaction and displacement on all soils. When slash mat availability is less than 12 inches dry soil conditions are recommended. Dry soil conditions are when surface horizons between 2 to 6 inches of the soil surface are dry. Refer to Soil Moisture vs. Texture Operability guide included with the specialist report. A. Recommendations for machine operation during winter activities include: 6 inches of frozen ground, 3 inches of frozen ground with 10 inches of settled snow; 18 inches or more of snow; 10 inches of slash mat in combination with 14 inches of settled snow; or moisture conditions acceptable for minimizing rutting or puddling of soils. B. Failure indicators of cold weather condition include: machine break-through begins to occur; equipment tracks sink half the width of the track below the soil surface with one or two passes; ruts greater than 15 cm deep form in the soil; mid-day temperatures rise above freezing; surface melt occurs over existing frozen surfaces.
SOILS-06	Keep temporary road placement to deep soils as much as possible.
SOILS-07	Use existing roads, skid trails, and landings as much as possible. All new landings should be subsoiled or scarified and seeded after harvest activities are complete. Existing skid trails that are used for HK harvest purposes should be subsoiled or scarified when ruts exceed 6 inches and receive scattered woody debris. New skid trails should be subsoiled or scarified when viewable from roads or recreation areas and receive scattered woody debris. If seed is not readily available on forest, woody debris scattered over the area is acceptable. Refer to Subsoiling Prescription guide included with the specialist report.
SOILS-08	High soil burn severity areas are located within harvest activity areas. These areas are identified by standing, charred, dead trees surrounded by single grain soil structure at the surface extending down a couple inches, and lack vegetative cover or growth. Vehicle activity in high soil burn severity areas should be avoided during harvest for areas with a radius exceeding 20 feet. Directional tree falling and lifting of logs for removal is recommended to harvest in high soil burn severity areas.
	WATER QUALITY
WQ-01	Install water bars on temporary roads and skid trails with spacing indicated in the table. Locations will be evaluated post-harvest. Water-bars should be cut at an angle of 30-40 degrees and depth of 12-18 inches. **Gradient / Spacing** < 5 % — 200 ft 5-10 % — 150 ft 10-20% — 100 ft 21–40% — 50 ft > 40% — 25 ft
WQ-02	Landings, equipment staging, storing, parking, and refueling will be outside of RHCAs and in areas designated by the sale administrator. Avoid landings on steep slopes, highly erodible soil, or other sensitive areas. Use existing landings where possible. Restore and stabilize landings after use.

	Design
WQ-03	Erosion control and sediment measures will be implemented on disturbed areas; these include skid trails, roads, landings, temporary road fills, water source sites, borrow sites, or other areas disturbed during mechanical vegetation treatments. Install and maintain erosion control (e.g. functionally sized and place water bars) on skid trails prior to spring runoff.
WQ-04	Install sediment and storm water controls prior to soils disturbing activities (e.g. culvert installation, road maintenance, fire line construction).
WQ-05	If it is determined that crossing an RHCA or ephemeral draw is operationally necessary, they will be approved on the ground by the Sale Administrator in consultation with the Hydrologist.
WQ-06	Use suitable measures (water bars, culverts, etc.) to disperse concentrated flows of water from road surface drainage features to avoid or minimize erosion and sediment transport to waterbodies.
WQ-07	Temporary roads will be inspected to verify that erosion and storm water controls are implemented and functioning and are appropriately maintained. Design roads and skid trail approaches to minimize overland flow entering the landing.
WQ-08	Ensure culverts do not become plugged from logging activities
WQ-09	Re-opened closed roads and temporary road entrances will be closed and/or physically blocked so that unauthorized motorized vehicles cannot access the road after project implementation. No temporary roads in RHCAs.
WQ-10	Existing native surface or gravel roads crossing perennial streams will be monitored during haul by the sale administrator and rocked as needed to maintain a durable surface and minimize potential for sediment transport
WQ-11	Operations should be minimized during runoff, storm, or snow melt events to minimize the amount of sediment flowing into stream crossing.
WQ-12	All road use for hauling will conform to Umatilla National Forest Road Use Rules.
WQ-13	Ditch lines that show no sign of erosion (i.e. grassed in or rocky etc.) should not be disturbed by road maintenance unless necessary to maintain drainage or obtain displaced surface rock. Surface rock may be removed from the ditch line if the cleanout is discontinuous allowing for places for sediment to be captured. Blading segments of ditch line that flow directly into a ditch relief culverts which discharge in close proximity of streams should be avoided.
WQ-14	Do not cut the toe of the cut slope when grading roads
WQ-15	Rock surfacing will be applied to native surface roads where they cross or otherwise enter RHCAs and where sediment could be routed into streams.
WQ-16	Reconstruction or maintenance of roads would not be done when soils are saturated, or runoff occurs to minimize erosion and sedimentation.
WQ-17	Commercial use of roads shall be suspended when commercial contract or permit operations create a continuous discharge of sediment into live streams that result in an increase in turbidity. This may be from pumping of saturated fines creating sediment laden water on and/or from the road surface. Visual evidence of this may be identified by the increase in turbidity in live running streams evident at points downstream from the outflows of culverts, ditch lines, or fords.

	Design
WQ-18	During road maintenance and snow plowing side casting of materials will not occur where these materials could be directly or indirectly introduced into RHCAs, or where the placement of these materials could contribute to the destabilization of the slope.
WQ-19	Slough and waste materials removed during road maintenance activities, including ditch and culvert cleaning, will be deposited in approved disposal areas outside of RHCAs.
WQ-20	Prior to reclosing roads, use suitable measures to ensure that surface drainage will intercept, collect and remove water from the closed road surface and surrounding slopes in a manner that minimizes concentrated flow and erosion on the road surfaces without frequent maintenance.
WQ-21	Conduct regular preventive road maintenance, including during times of haul, to avoid deterioration of the road surface and minimize the effects of erosion and sedimentation.
WQ-22	Trees within RHCAs with roads: A. For roads perpendicular to and within RHCAs, in the RHCA below the road, danger trees may be cut and removed if 1) PACFISH Riparian Management Objectives (RMOs) for large wood are met, and 2) no heavy equipment is allowed off the road (reach of equipment only). B. For roads perpendicular to and within RHCAs, in the RHCA above the road, danger trees may be cut and removed if no heavy equipment is allowed off the road (reach of equipment only. C. Danger trees within the RHCAs that are felled and obstruct the operation of other contracts (haul route) may be removed if they cannot be easily placed back into the RHCA below the road. D. For roads that are parallel to and within an RHCA, in the RHCA below the road, trees may be harvested as long as FISH-01 requirements are met. E. For roads that are parallel to and within an RHCA, in the RHCA above the road, danger trees can be cut and removed; however, no heavy equipment would be allowed off the existing road surface within the RHCA (i.e. reach of equipment only). F. Where practical, scatter slash adjacent to the road in RHCAs.
WQ-23	Commercial use of roads shall be suspended when commercial contract or permit operations create a continuous discharge of sediment into live streams that result in an increase in turbidity. This may be from pumping of saturated fines creating sediment laden water on and/or from the road surface. Visual evidence of this may be identified by the increase in turbidity in live running streams evident at points downstream from the outflows of culverts, ditch lines, or fords.
	WILDLIFE
WL-01	Maintain snags ≥ 21" DBH unless they pose a hazard to operations; except that some snags ≥ 21" DBH may be cut to meet the purpose and need of the project; the majority should be Ponderosa pine and Douglas-fir.
WL-02	Retain pre-fire snags unless they pose a hazard to operations

Table B -2: Blue Mountain Project Design Criteria limited activity buffers

PACFISH/ INFISH Category	Fish Bearing	Permanently Flowing non-fish Bearing and Ponds, Lakes and wetlands > 1 acres	Seasonally Flowing or Intermittent Streams, wetlands < 1 acres, landslides and landslide-prone areas	RHCA Restrictions* (Activities allowed outside the limited activity stream buffer**)
Activity	**Default Limited Activity Buffers**			
Thinning in RHCAs	100'	75' on slopes < 30%	50' on slopes < 30%	• treatment by hand only (no ground based equipment) • prior to treatment 500 – 2,500 stems per acre; post treatment fully stocked (generally 175 – 220 trees per acre) • variable spacing • all shade providing trees and long term wood recruitment trees retained • **only trees < 9" dbh**

* There may be situations where the width of a limited activity buffer may need to be increased or decreased based on local sixth field watershed conditions. For a project to propose activities with a different limited activity buffer, an analysis at a sixth field watershed scale must occur and be attached to the Compliance Form found in Appendix E. The analysis should focus on indicators which could affect ESA listed species and their DCH from project activities. This includes a change in any of the following: temperature, sediment, large wood, or overall vegetation condition of RHCAs. After the project is completed results will be summarized in a completion report (see Appendix E).

** RHCA restrictions are for the areas outside the limited activity buffer in the full PACFISH buffers.